

**ABSTRACT**

**[0060]** A system and method for detecting and tracking an object is disclosed. A camera captures a video sequence comprised of a plurality of image frames. A processor receives the video sequence and analyzes each image frame to determine if an object is detected. The processor applies one or more classifiers to an object in each image frame and computes a confidence score based on the application of the one or more classifiers to the object. A database stores the one or more classifiers and vehicle training samples. A display displays the video sequence.